

Appl. No. 10/698,143
Amdt. dated May 16, 2005
Reply to Office action of March 15, 2005

In the Claims:

Claims 1, 2 and 4 are amended herein. The remaining claims are not amended in this response.

1. (currently amended) A method for fabricating a reflective type reflector plates of a reflective liquid crystal display includes the deposition of display, the method comprising the step of:

forming a protection layer over a glass substrate after thin film transistors are built on top of the glass substrate to shield off reflection from an exposure stage, so as to enable even distribution of light over ~~the surface of~~ the protection layer and shortening of the light exposure time.

2. (currently amended) The method as claimed in claim 1, wherein the ~~fabricating process at least includes~~ method further comprises the steps of:

forming transparent electrodes over the glass substrate after the thin film transistors are built on ~~top of~~ the glass substrate;

depositing a the protection layer over the transparent electrodes;

patterning the transparent electrodes and the protection layer ~~through the steps:~~ to form pixel patterns;

Appl. No. 10/698,143
Amdt. dated May 16, 2005
Reply to Office action of March 15, 2005

spin coating of a photo-resist layer over the protection layer using polymer resin material;

removing the resin material over non pattern areas by ~~exposure and developing with a solution~~; and

depositing a reflective metal film.

3. (original) The method as claimed in claim 1, wherein the fabricating process also applies to a semi-transmissive type reflector plate, including deposition of transparent electrodes, deposition of protection layer, patterning of the transparent electrodes and the protection layer, spin coating of photo-resist layer, exposure and developing, and depositing of reflective metal film, and, in addition, an etching back process is used to remove the metal deposits over non-pattern areas on the protection layer to form a light-transmitting region on the reflective surface.

4. (currently amended) ~~A method for fabricating~~ reflective type reflector ~~plates~~ plate of a reflective liquid crystal display, ~~the plate includes the processes to be performed over the a glass substrate to form on which~~ thin film transistors, transparent electrodes and undulating resin outgrowth are formed, wherein ~~the pixel region has a protection layer in~~ is formed between the transparent electrodes and the undulating resin outgrowth.

Appl. No. 10/698,143
Amdt. dated May 16, 2005
Reply to Office action of March 15, 2005

5. (original) The method as claimed in claim 4, wherein the glass substrate has a light-transmitting region in between the protection layer and the undulating resin outgrowth.

6. (original) A method for fabricating reflective type reflector plates of a reflective liquid crystal display includes the step of creating a protection layer in the pixel region at the same time as the thin film transistors over the glass substrate to prevent light reflection from the exposure stage in the process of forming the undulating resin outgrowth.

7. (original) The method as claimed in claim 6, wherein the fabricating process can be implemented by creating the gate electrodes and the protection layer in the pixel region at the same time through unified patterning for the metal interlayers in the process of forming the thin film transistors.

8. (original) The method as claimed in claim 6, wherein the fabricating process can be implemented by creating the source/drain electrodes and the protection layer in the pixel region at the same time through unified patterning for the metal interlayers in the process of forming the thin film transistors.

9. (original) The method as claimed in claim 7, wherein the glass substrate to fabricate the reflective type reflector plate through a sequence of processes: the formation of transparent electrodes, patterning of the transparent electrodes,

Page 4 — RESPONSE (U.S. Patent Appln. S.N. 10/698,143)
[\\Files\files\Correspondence\May 2005\t1270rtoa051605.doc]

Appl. No. 10/698,143
Amdt. dated May 16, 2005
Reply to Office action of March 15, 2005

spin coating of photo-resist layer, exposure and developing, and the deposition of the reflective metal film.

10. (original) The method as claimed in claim 8, wherein a glass substrate is provided to fabricate a semi-transmissive type reflector plate through a sequence of processes: the formation of transparent electrodes, patterning of the transparent electrodes, spin coating of photo-resist layer, exposure and developing, and the deposition of the reflective metal film.

11. (original) The method as claimed in claim 7, wherein a glass substrate is provided to fabricate a semi-transmissive type reflector plate through a sequence of processes: the formation of transparent electrodes, patterning of the transparent electrodes, spin coating of photo-resist layer, exposure and developing, the deposition of the reflective metal film, and etching back for the light-transmitting region.

12. (original) The method as claimed in claim 8, wherein a glass substrate is provided to fabricate semi-transmissive type reflector plate through a sequence of processes: the formation of transparent electrodes, patterning of the transparent electrodes, spin coating of photo-resist layer, exposure and developing, deposition of the reflective metal film, and etching back for the light-transmitting region.

Appl. No. 10/698,143
Amdt. dated May 16, 2005
Reply to Office action of March 15, 2005

13. (original) A reflective type reflector plate for a reflective liquid crystal display is created over a glass substrate having thin film transistors, transparent electrodes and undulating resin outgrowth formed thereabove, wherein, a protection layer is created in the pixel region and on the level equivalent to a layer of the thin film transistors for shielding off the reflection from the exposure stage and shortening the exposure time.

14. (original) The reflective type reflector plate as claimed in claim 13, wherein the thin film transistors, the transparent electrodes and the undulating resin outgrowth are respectively formed in the same order over the glass substrate.

15. (original) The reflective type reflector plate as claimed in claim 13, wherein the protection layer in the pixel region is formed in the layer equivalent to gate electrodes in the thin film transistors.

16. (original) The reflective type reflector plate as claimed in claim 13, wherein the protection layer in the pixel region is formed in the layer equivalent to source/drain electrodes in the thin film transistors.

17. (original) The reflective type reflector plate as claimed in claim 13, wherein the reflective plate is a full reflector plate.

Page 6 — RESPONSE (U.S. Patent Appln. S.N. 10/698,143)
[\\Files\files\Correspondence\May 2005\t1270rtoa051605.doc]

Appl. No. 10/698,143
Amdt. dated May 16, 2005
Reply to Office action of March 15, 2005

18. (original) The reflective type reflector plate as claimed in claim 14, wherein the reflective plate is a full reflector plate.

19. (original) The reflective type reflector plate as claimed in claim 15, wherein the reflective plate is a full reflector plate.

20. (original) The reflective type reflector plate as claimed in claim 16, wherein the reflective plate is a fail reflector plate.

21. (original) The reflective type reflector plate as claimed in claim 13, wherein the undulating resin outgrowth over the glass substrate has a light-transmitting region between protruding portions thereby forming a semi-transmissive type reflector plate.

22. (original) The reflective type reflector plate as claimed in claim 14, wherein the undulating resin outgrowth over the glass substrate has a light-transmitting region between protruding portions thereby forming a semi-transmissive type reflector plate.

23. (original) The reflective type reflector plate as claimed in claim 15, wherein the undulating resin outgrowth over the glass substrate has a light-transmitting region between

Appl. No. 10/698,143
Amdt. dated May 16, 2005
Reply to Office action of March 15, 2005

protruding portions thereby forming a semi-transmissive type reflector plate.

24. (original) The reflective type reflector plate as claimed in claim 16, wherein the undulating resin outgrowth over the glass substrate has a light-transmitting region between protruding portions thereby forming a semi-transmissive type reflector plate.

25. (original) The reflective type reflector plate as claimed in claim 13, wherein the protection layer formed over the glass substrate can be metal.

26. (original) The reflective type reflector plate as claimed in claim 13, wherein the protection layer over the glass substrate can be non-metal.